

U.S. Patent Application Serial No. 10/588,717  
Amendment filed June 5, 2009  
Reply to OA dated February 9, 2009

**AMENDMENTS TO THE CLAIMS:**

Please cancel claims 1, 2, 7-11 and 14 without prejudice or disclaimer, amend claims 12 and 13, and add new claims 15-21, as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-11 (Canceled).

Claim 12 (Currently amended): An optical waveguide comprising a lower cladding layer (I), a core (II) and an upper cladding layer (III), wherein at least one of (I), (II) and (III) is formed using the obtained by drying a photocurable resin composition according to claim 1; the photocurable resin composition comprising:

(A) a carboxy-containing unsaturated polyurethane resin obtained by reacting a polyisocyanate compound (a), a carboxy-containing polyol (b) and a hydroxy-containing unsaturated compound (c); and

(B) a solvent;

the hydroxy-containing unsaturated compound (c) being an unsaturated compound (c-2) having one hydroxy group and at least two unsaturated groups per molecule.

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Claim 13 (Currently amended): An optical waveguide comprising a lower cladding layer (I), a core (II) and an upper cladding layer (III), wherein at least one of (I), (II) and (III) is formed using the a photocurable dry film according to claim 10 or photocured article thereof; the photocurable dry film being obtained by drying a photocurable resin composition; the photocurable resin composition comprising:

(A) a carboxy-containing unsaturated polyurethane resin obtained by reacting a polyisocyanate compound (a), a carboxy-containing polyol (b) and a hydroxy-containing unsaturated compound (c); and

(B) a solvent;

the hydroxy-containing unsaturated compound (c) being an unsaturated compound (c-2) having one hydroxy group and at least two unsaturated groups per molecule.

Claim 14 (Canceled).

Claim 15 (New): The optical waveguide according to claim 12, wherein the polyisocyanate compound (a) is an aromatic diisocyanate.

Claim 16 (New): The optical waveguide according to claim 12, wherein the carboxy-containing unsaturated polyurethane resin (A) is a resin obtained by reacting a polyisocyanate

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compound (a), a carboxy-containing polyol (b), a hydroxy-containing unsaturated compound (c), and a polyol (d) other than the polyol (b).

Claim 17 (New): The optical waveguide according to claim 16, wherein the polyol (d) is an aromatic polyol.

Claim 18 (New): The optical waveguide according to claim 12, further comprising a radical photopolymerization initiator.

Claim 19 (New): The optical waveguide according to claim 13, which has a softening temperature within a range of 0°C to 300°C.

Claim 20 (New): The optical waveguide according to claim 12, wherein the unsaturated compound (c-2) is at least one member selected from the group consisting of glycerol di(meth)acrylate, diglycerol tri(meth)acrylate, trimethylolpropane di(meth)acrylate, pentaerythritol tri(meth)acrylate, and dipentaerythritol penta(meth)acrylate.

Claim 21 (New): The optical waveguide according to claim 12, wherein at least one of (I), (II) and (III) is obtained by drying a photocurable resin composition and curing the dried photocurable resin composition.